Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Currently Amended) A method, comprising:

receiving ~~packet fragments at an entry point~~ a packet fragment of a packet;

determining if ~~a~~ said received packet fragment ~~received at the entry point~~ is a head fragment or a non-head fragment of said packet; and

~~if the received packet fragment is said non-head fragment:~~

~~determining if a helper session associated with said head fragment, corresponding to the received non-head fragment, is present; updating the received non-head fragment with routing information from the helper session; and forwarding the updated non-head fragment based on the routing information from an exit point; and~~

~~otherwise storing the received non-head fragment if the helper session is not present, and waiting for the corresponding head fragment to be received at the entry point; and~~

if the received packet fragment is determined to be the head fragment of said packet:

processing the head fragment to determine ~~said routing information, including~~ a destination address for said head fragment; and

~~updating any stored corresponding non-head fragment with said routing information determined as a result of processing the head fragment, and forwarding the updated corresponding non-head fragment from the exit point,~~

~~wherein said updating the received non-head fragment with routing information and said updating any stored corresponding non-head fragment with said routing information include:~~

applying ~~said determined routing information that includes~~ said destination address for said head fragment, which was determined by said processing of said head fragment, to ~~said received non-head fragment and to said any stored~~ at least one corresponding non-head fragment of said packet.

2.   (Currently Amended) The method of claim 1 wherein processing the head fragment includes generating a session pointer data structure having the ~~routing information~~ destination address, the method further comprising ~~at the exit point~~ after processing the head fragment:

locating said destination address from the session pointer data structure that was generated during the processing of the head fragment; and

~~generating the helper session based on the routing information from the session pointer data structure; and~~

wherein said applying said ~~determined routing information~~ destination address to said ~~any stored~~ at least one corresponding non-head fragment includes ~~using the routing information in the generated helper session to update any stored corresponding non-head fragment, the method further including:~~

applying the ~~routing information~~ destination address located from said session pointer data structure ~~in the generated helper session~~ to a corresponding non-head fragment subsequently received ~~at the entry point~~ after receiving said head fragment.

3.   (Currently Amended) The method of claim 1 wherein receiving packet fragments at ~~the entry point~~ comprises receiving IP-fragmented packets.

4.   (Currently Amended) The method of claim 1 wherein the head fragment includes substantially all header information from ~~its original~~ said packet, and wherein the at least one non-head fragment includes ~~relatively less of the header information~~ packet data from ~~the original~~ said packet.

5.   (Currently Amended) The method of claim 1 wherein both the head and non-head fragments contain duplicative header information from ~~their original~~said packet, ~~the method further comprising~~wherein:

said processing the head fragment includes processing one of the fragments having the header information as the head fragment; and

said applying includes designating another one of the fragments having the header information as the at least one non-head fragment.

6.   (Currently Amended) The method of claim 1 wherein ~~updating the non-head fragment with routing information from the helper session~~said applying includes updating ~~source and~~a destination address ~~fields~~field of the at least one non-head fragment by overwriting said destination address into said destination address field.

7.   (Currently Amended) The method of claim 1 wherein ~~updating the non-head fragment with routing information from the helper session~~said applying includes adding a routing tag to the at least one non-head fragment that includes said determined destination address.

8.   (Original) The method of claim 1 wherein processing the head fragment includes processing the head fragment according to at least one of Layer 4 through Layer 7 criteria.

9.   (Currently Amended) A method, comprising:
determining ~~if a fragment is either a head fragment or a non-head fragment;~~

~~processing the fragment if it is a head fragment, including determining routing information that includes~~ a destination address for ~~said~~ a received head fragment of a packet; and

applying the determined ~~routing information that includes said~~ destination address to any corresponding non-head fragment of said packet that is received subsequently after the

head fragment and to any corresponding stored non-head fragment of said packet that is received prior to the head fragment.

10.   (Currently Amended)   The method of claim 9, further comprising forwarding the non-head fragments having the determined ~~routing information~~destination address applied thereto.

11.   (Currently Amended) The method of claim 9, further comprising:

generating a session associated with the head fragment;

obtaining the ~~routing information~~destination address from the session, and wherein said applying the determined ~~routing information that includes said~~ destination address to any corresponding non-head fragment of said packet that is received subsequently after the head fragment includes applying the ~~routing information~~destination address obtained from said session to said any corresponding non-head fragment received subsequently after the head fragment; and

storing a plurality of corresponding non-head fragments if the session has not been generated, and wherein said applying the determined ~~routing information that includes said~~ destination address to any corresponding stored non-head fragment of said packet includes subsequently applying the determined ~~routing information~~destination address to said stored plurality of non-head fragments after the session has been generated.

12.   (Currently Amended) The method of claim 9 wherein said applying the ~~routing information~~determined destination address to the non-head fragments includes ~~updating source and~~overwriting a destination field~~s~~ of these non-head fragments with said determined destination address.

13.   (Currently Amended) An article of manufacture, comprising:

a computer-readable medium having instructions stored thereon that are executable by a processor to handle fragments, by:

determining if a fragment of a packet is either a head fragment or a non-head fragment;

processing the fragment if it is determined to be a-said head fragment, including instructions to determining routing information that includes to determine a destination address for said head fragment; and

applying the determined routing information that includes said destination address to any corresponding non-head fragment of said packet that is received subsequently after the head fragment and to any corresponding stored non-head fragment of said packet that is received prior to the head fragment.

14. (Currently Amended) The article of manufacture of claim 13 wherein the computer-readable medium further includes instructions stored thereon that are executable by said processor to handle fragments, by:

forwarding the non-head fragments having the routing informationdetermined destination address applied thereto.

15. (Currently Amended) The article of manufacture of claim 13 wherein the computer-readable medium further includes instructions stored thereon that are executable by said processor to handle fragments, by:

generating a session associated with the head fragment;

obtaining the routing informationdestination address from the session, and wherein said applying the determined routing information that includes said-destination address to any corresponding non-head fragment of said packet that is received subsequently after the head fragment includes applying the routing informationdestination address obtained from said session to said any corresponding non-head fragment received subsequently after the head fragment; and

storing a plurality of corresponding non-head fragments if the session has not been generated, and wherein said applying the determined routing information that includes said destination address to any corresponding stored non-head fragment of said packet includes

subsequently applying the determined ~~routing information~~ destination address to said stored plurality of non-head fragments after the session has been generated.

16. (Currently Amended) The article of manufacture of claim 13 wherein the instructions to apply the ~~routing information~~determined destination address include instructions to apply a routing tag to the non-head fragments that includes said determined destination address.

17. (Currently Amended) A system, comprising:

a means for determining if a fragment of a packet is either a head fragment or a non-head fragment;

a means for processing the fragment if it is determined to be a head fragment, ~~including a means for determining routing information that includes~~ to determine a destination address for said head fragment; and

a means for applying the determined ~~routing information that includes said~~ destination address to any corresponding non-head fragment of said packet that is received subsequently after the head fragment and to any corresponding stored non-head fragment of said packet that is received prior to the head fragment.

18. (Currently Amended) The system of claim 17, further comprising a means for forwarding the non-head fragments having the determined ~~routing information~~destination address applied thereto.

19. (Currently Amended) The system of claim 17, further comprising:

a means for generating a session associated with the head fragment;

a means for obtaining the ~~routing information~~destination address from the session, and wherein said means for applying the determined ~~routing information~~destination address that includes said destination address to any corresponding non-head fragment of said packet that is received subsequently after the head fragment ~~includes means for applying~~applies the ~~routing~~

~~information~~<u>destination address</u> obtained from said session to <u>said</u> any corresponding non-head fragment received subsequently after the head fragment; and

a means for storing a plurality of corresponding non-head fragments if the session has not been generated, and wherein said means for applying the determined ~~routing information that includes said~~ destination ~~addrees~~ <u>address</u> to any corresponding stored non-head fragment <u>of said packet</u> ~~includes means for~~ subsequently ~~applying~~ <u>applies</u> the determined ~~routing information~~ <u>destination address</u> to said stored plurality of non-head fragments after the session has been generated.

20.   (Currently Amended) A system, comprising:

an entry point to receive packet fragments <u>of a packet</u>;

a network device coupled to the entry point to determine if a packet fragment received at the entry point is a head fragment ~~or a non-head fragment,~~ <u>of said packet;</u>

~~wherein if the received packet fragment is said non-head fragment:~~

~~the network device is adapted to determine if a session associated with said head fragment, corresponding to the received non-head fragment, is present, update the received non-head fragment with routing information from the helper session, and forward the updated non-head fragment based on the routing information;~~

a storage unit coupled to the network device to ~~otherwise~~ store ~~the received~~ non-head fragment<u>s</u> <u>of said packet that are</u> ~~if the helper session is not present, and wherein the network device is adapted to wait for the corresponding head fragment to be~~ received at the entry point <u>prior to said head fragment</u>;

wherein ~~if the received packet is the head fragment,~~ the network device is adapted to forward the head fragment to be processed ~~by at least one feature~~ to determine ~~said routing information, including~~ a destination address for said head fragment; and

an exit point coupled to the network device, wherein ~~any corresponding~~ <u>said</u> non-head fragment<u>s</u> stored at the storage unit ~~can be~~<u>are</u> updated at the exit point with said ~~routing information~~<u>destination address</u> that is determined ~~as a result~~ from <u>said</u> processing of the

head fragment, ~~and further wherein the updated corresponding non-head fragment and head fragment can be forwarded from the exit point,~~

~~wherein said update of the received non-head fragment with routing information and said update of any stored corresponding non-head fragment with said routing information include:~~

~~application of said determined routing information that includes said destination address to said received non-head fragment and to said any stored corresponding non-head fragment.~~

21.   (Original) The system of claim 20 wherein the network device comprises a switch.

22.   (Original)   The system of claim 20 wherein the entry and exit points comprise part of at least one software-based function.

23.   (Currently Amended)   The system of claim 20 wherein the ~~feature to~~ processing of the head fragment ~~comprises~~ includes at least one from a plurality of Layer 4 through Layer 7 ~~features~~ processing.

24.   (Currently Amended)   The system of claim 20 wherein the ~~feature to~~ processing of the head fragment to determine said destination address is ~~integrated~~ performed in the network device.

25.   (Currently Amended) The system of claim 20, further comprising at least another network device coupled to the exit point and ~~having the feature to~~ being adapted to perform said processing of the head fragment.

26.   (Currently Amended) The system of claim 20, further comprising another storage unit, coupled to the exit point, to store the ~~routing information from the helper session~~destination address.

27.   (Original) The system of claim 20, further comprising a software program to operate in conjunction with the network device to handle the non-head and head fragments.

28.   (Currently Amended) An apparatus to handle packet fragments, the apparatus comprising:

a network device adapted to ~~determine if a received fragment is either~~receive a head fragment ~~or a non-head fragment~~of a packet, to process the received ~~fragment if it is a~~ head fragment to determine ~~routing information that includes~~ a destination address for said head fragment, and to apply the determined ~~routing information that includes said~~ destination address to any corresponding non-head fragment of said packet that is received subsequently after the head fragment and to any corresponding stored non-head fragment that is received prior to the head fragment.

29.   (Previously Presented) The apparatus of claim 28 wherein said network device includes a switch.

30.   (Currently Amended) The apparatus of claim 28 wherein said network device is adapted to perform said application of said ~~routing information~~determined destination address by addition of a routing tag to said non-head fragments ~~associated with said processed head fragment~~ that includes said determined destination address.

31.   (Previously Presented) The apparatus of claim 28 wherein said network device is adapted to process said head fragment according to at least one of Layer 4 through Layer 7 criteria.

32.   (New)   The method of claim 1 wherein said at least one corresponding non-head fragment includes head fragments of said packet that are received prior to receiving said head fragment and non-head fragments of said packet that are received after receiving said head fragment, the method further comprising:

storing said non-head fragments of said packet that are received prior to receiving said head fragment, wherein said applying said destination address to said at least one corresponding non-head fragment includes applying said destination address to said stored non-head fragments received prior to receiving said head fragment and to non-head fragments received after receiving said head fragment.